

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

December 14, 2012

Via E-mail
Mr. Bryan J. Carey
Chief Financial Officer
Radiation Therapy Services Holdings, Inc.
2270 Colonial Boulevard
Fort Myers, FL 33907

Re: Radiation Therapy Services Holdings, Inc.

Form 8-K

Filed December 11, 2012 File No. 333-170812

Dear Mr. Carey:

We have reviewed your filing and have the following comment.

Please respond to this letter within five business days by providing the requested information and amending your filing or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response. Please furnish us a letter on EDGAR under the form type label CORRESP that keys your response to our comments.

After reviewing any amendment to your filing and the information you provide in response to the comment, we may have additional comments.

Item 4.01 Changes in Registrant's Certifying Accountant.(b) Engagement of New Independent Registered Public Accounting Firm

1. Please amend your Item 4.01 Form 8-K to comply with Item 304(a)(2) of Regulation S-K regarding your consultation with your newly engaged auditor, Deloitte & Touche LLP, during your two most recent fiscal years, and any subsequent interim period prior to engaging the new auditor.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Mr. Bryan J. Carey Radiation Therapy Services Holdings, Inc. December 14, 2012 Page 2

In responding to our comment, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

If you have any questions, please call Christine Allen (202) 551-3652.

Sincerely,

/s/ Joel Parker

Joel Parker Accounting Branch Chief